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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,090	03/26/2004	Kenjiro Sumiyoshi	13382-US-486	8211
7590 05/16/2007 J. C. PATENTS			EXAMINER	
4 VENTURE			NADKARNI, SARVESH J	
SUITE 250 IRVINE, CA 93	2618		ART UNIT	PAPER NUMBER
, , , , , , , , , , , , , , , , , , , ,			2609	
•			MAIL DATE	DELIVERY MODE
			05/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary		Application No. Applicant(s)		ant(s)		
		10/810,090	SUMIY	SUMIYOSHI, KENJIRO		
		Examiner	Art Un	it		
		Sarvesh J. Nadkarni	2609			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
WHIC - Exter after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Depriod for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUN 16(a). In no event, however, may rill apply and will expire SIX (6) Micause the application to become	IICATION.  a reply be timely filed  DNTHS from the mailing  ABANDONED (35 U.S.	g date of this communication. .C. § 133).		
Status						
1)	Responsive to communication(s) filed on					
2a)	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under E	x parte Quayle, 1935 C	D. 11, 453 O.G.	213.		
Dispositi	on of Claims		•			
5)□ 6)⊠ 7)⊠	Claim(s) 1-17 is/are pending in the application.  4a) Of the above claim(s) is/are withdrav  Claim(s) is/are allowed.  Claim(s) 1-10 and 13-17 is/are rejected.  Claim(s) 11 and 12 is/are objected to.  Claim(s) are subject to restriction and/or					
Application Papers						
10)	The specification is objected to by the Examiner The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the o Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	epted or b) objected t drawing(s) be held in abey on is required if the drawir	ance. See 37 CFF ng(s) is objected to	R 1.85(a). b. See 37 CFR 1.121(d).		
Priority u	under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
Attachmen	t(s)					
1) Notice 2) Notice 3) Inform	te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date 6/14/2004.	_ Paper No	v Summary (PTO-41: o(s)/Mail Date f Informal Patent App	_•		

#### **DETAILED ACTION**

This Office Action is in response to the application filed March 26, 2004, Application Number: 10/810,090 (hereinafter referred to as "application"). The application was published on September 30, 2004, Publication Number: US 2004/0189546 A1. Page and line number references made in this action relate to the originally filed application, not the publication. Receipt is acknowledged of the information disclosure statement, form PTO-892, filed on June 14, 2004.

# Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### Claim Objections

2. Claim 1 is objected to because of the following informalities: the element "vehicle information" is not introduced using proper antecedent basis forma on page 65, line 9 of the application; the article "a" or "an" is used to introduce an element, whereas "the" or "said" is used to refer to a previously introduced element or step. Furthermore, "vehicle information" is used with improper antecedent basis on lines 12 and 16 of page 65. Appropriate correction is required.

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### Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "a display surface on which information on the vehicle is displayed" does not clearly identify anywhere in the specification where "on" the vehicle the information is displayed. Appropriate correction is required. Strictly for purposes of examination, the phrase is understood to mean "a display surface on which information about the vehicle is displayed."
- 5. Furthermore, the phrase "by transmitting a reflecting mirror member provided near to the occupant" on page 65, line 14 of the application is not clear nor is it adequately defined in the specification. Appropriate correction is required. Strictly for purposes of examination, the phrase is understood to mean, "and is transmitted by a reflecting mirror member provided near to the occupant".
- 6. Additionally, the phrase "where does not overlap with said vehicle information" on page 65, line 16 is not clear nor is it adequately defined in the specification. Appropriation correction is required. Strictly for purposes of examination, the phrase is understood to mean, "which does not overlap with said vehicle information..."
- 7. Finally the entire final paragraph, lines 16-29 of the claim 1 on page 65 are not clear.

  The phrase "proximity of periphery of said reflecting member" is not clear nor is it clearly defined in the specification. Appropriate correction is required. Strictly for purposes of examination, lines 16-19 are understood to mean "an area where images reflected from a mirror

farther from the occupant and does not overlap with images reflected from a mirror closer to the occupant".

# Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 9. Claim 1 and 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al, United States Patent, Patent Number: US 6,741,223 B1, Date of Patent: May 25, 2004, filed on June 7, 2002 (hereineafter referred to as "Kobayashi '223").
- vehicle (see column 5, lines 66-67, "display device 11 for vehicles"; further depicted in FIGs. 1, 13 and 14), comprising: a cluster disposed to be faced to an occupant (see column 6, lines 11-13, "an instrument panel of the vehicle so as to oppose the driver"); and a display device disposed in said cluster (see column 6, lines 11-13 and as depicted in FIG. 1); said display device including a displaying surface (see FIGS. 13 and 14, element 55, and further described at column 16, lines 22-23 as being "a display 55, such as a liquid crystal display") on which information on the vehicle is displayed (see column 8, lines 33-40 "image displayed on the first display 17"), and a plurality of reflecting mirror members having a distance from each other (see FIGs. 13 and 14, elements 60-62) and disposed forward of the occupant (see

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column 16, lines 40-43, the total reflection mirror 60 reflects display content toward the driver, therefore, it and the other mirrors must be disposed forward of the occupant), for allowing the occupant to see said vehicle information by reflecting the vehicle information displayed on said displaying surface (see column 16, lines 40-43, the total reflection mirror 60 reflects display content toward the driver as used in conjunction with first display), wherein said vehicle information reflected by a reflecting mirror member provided far from the occupant (see column 16, lines 40-43, "total reflection mirror 60") is configured to be visible by the occupant by transmitting a reflecting mirror member provided near to the occupant (see FIGs. 13 and 14 the half mirrors 61 and 62 are depicted as being located near the driver), and an area where does not overlap with said vehicle information (see column 16, lines 40-44, the display area 56) reflected by said reflecting mirror member provided far from the occupant (see column 16, lines 40-43, "total reflection mirror 60") is provided at a proximity of periphery of said reflecting mirror member provided near to the occupant (see column 16, lines 40-56, and as further shown in FIGs. 13 and 14, the display area 56 and the total reflection mirror 60, are provided at a proximity of periphery to the half mirror 62 and display area 58).

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- 11. With regard to claim 2, Kobayashi '223 teaches the information displaying apparatus for the vehicle according to claim 1, wherein at least three reflecting mirror members are provided (see FIG. 13, and FIG 14 and further explained at column 16, lines 40-51), and at least two mirror members provided near to the occupant are half-mirror members (see column 16, lines 47-51 describing the "half mirrors 62").
- 12. With regard to claim 3, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 1, wherein a control in displaying is carried out in said

displaying surface (see column 1 lines 65-67 describing the function of the "total control unit" or "CPU 13" to control what is displayed by display) so that a vehicle information display is reflected and displayed at substantially center of (see FIG. 9A, which is a reflected image, further described in column 5, lines 10-15) the reflecting mirror member provided far from the occupant, (see FIGS. 13 and 14, element 60) and so that an other vehicle information display is reflected and displayed (see FIG 9B reflecting another image further described in column 5, lines 10-15) at the proximity of periphery of a reflecting mirror member provided nearer to the occupant (see FIGS. 13 and 14, elements 61 and 57) than the reflecting mirror member provided far from the occupant ((see FIGS. 13 and 14, elements 60 and 56) at a position where does not overlap with said vehicle information display (see FIG 9C and as described in column 5, lines 10-15, the images do not overlap).

# Claim Rejections - 35 USC § 103

- 13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 14. Claim 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '223.
- 15. With regard to claim 4, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 3, and a warning display (see FIG. 7A and 7C, element 42). However, Kobayashi '223 fails to disclose the warning display as the "other vehicle"

information display". Kobayashi '223 discloses it as reflecting off of element 60 the total reflecting mirror. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to make a warning display the other vehicle information display because this is merely a design choice. In FIGS. 9A-9C, 10A-10C, 11A-11C, and 12A-12C, Kobayashi '223 shows various elements chosen to be reflected off mirror 60 and other elements reflected off of half mirror 62; these designations are easily interchanged without any impact on functionality. Furthermore see column 17, the paragraph beginning on line 12.

With regard to claim 5, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 3, and a direction-indicating display (see FIGS. 9A-9C, 10A-10C, 11A-11C, and 12A-12C, depicting the forward direction of the vehicle) However, Kobayashi '223 fails to disclose the direction-indicating display as the "other vehicle information display". It would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to make a warning display the other vehicle information display because this is merely a design choice. Furthermore, see the argument in paragraph 9 above.

**17.** 

- 18. Claim 6 and 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '223 as applied to claim 3 above, and further in view of Menig et al, United States Patent, Patent Number: 6,289,332 B2, Date of Patent: September 11, 2001 (hereinafter referred to as "Menig '332").
- 19. With regard to claim 6, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 3, wherein said other vehicle information display is a

display for notifying approaching of ETC (see FIG. 8B, column 5, lines 1-10) for notifying that the vehicle approaches to a gate of ETC (column 11, lines 33-42) and the ETC approximation-notification display is reflected and displayed on the reflecting mirror member provided far from the occupant (see argument in paragraph 9), and the ETC approximation-notification display is reflected and displayed on the reflecting mirror member provided near to the occupant (see figure 8B, column 5, lines 1-10).

- 20. However, Kobayashi '223 fails to disclose changing the display when an object is far away from the vehicle and when the vehicle approaches toward the object.
- 21. Within the same field of endeavor, Menig '332 clearly teaches changing a vehicle information display on an information display apparatus when an object is far away from the vehicle to another vehicle information display as the vehicle approaches toward the object. (see FIG. 9 elements 900, 901 and 902 and further described in column 12, lines 4-24 wherein the object is another vehicle ahead of the vehicle.)
- Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the object-approaching system of Menig '332 into the vehicle information display apparatus of Kobayashi '223 because both teachings are within the same field of endeavor. Furthermore, Menig '332 and Kobayashi '223 both aim to assist a vehicle's occupant by providing the vehicle's occupant with clear internal and external diagnostic information regarding the vehicle and its surroundings. (See Menig '332 column 1, lines 19-22; Kobayashi '223 column 15, lines 4-14).
- 23. With regard to claim 7 and as applied to claim 3, Menig '332 clearly teaches the vehicle information display is relatively small when the object is far away, and when the vehicle

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approaches toward the object the vehicle information display is larger than displaying the vehicle information display when the object is far away. See Menig '332, column 12, lines 4-24. Therefore claim 7 is rejected on the same basis and arguments of claim 6.

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- 24. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '223 as applied to claim 3 above, and further in view of Breed et al, United States Patent, Patent Number: 5,845,000, Date of Patent: December 1, 1998 (hereinafter referred to as "Breed '000").
- 25. With regard to claim 8, Kobayashi discloses the information displaying apparatus for the vehicle according to claim 3. However, Kobayashi fails to teach an eyepoint detecting means for detecting an eyepoint of the occupant, wherein a display position of said vehicle information display or said other vehicle information display is changed according to a movement of the eyepoint.
- In the same field of endeavor, Breed '000 clearly teaches an eyepoint detecting means for detecting an eyepoint of the occupant (see column 12, lines 17-32, "eye tracker system" and as described therein), wherein a display position of said vehicle information display or said other vehicle information display is changed (see column 11, lines 53-55, "turn on a warning light") according to a movement of the eyepoint (see column 11, lines 51-53, "falling asleep").
- 27. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the eye tracker system of Breed '000 into the vehicle information display apparatus of Kobayashi '223 because application of the eye tracking system would further enhance a vehicle occupant's safety and wellbeing both of

which are common goals for both Kobayashi and Breed. Additionally, both are within the same field of endeavor.

- 28. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '223 as applied to claim 1 above, and further in view of Okuyama et al, United States Patent, Patent Number: 5,677,701, Date of Patent: October 14, 1997 (hereinafter referred to as "Okuyama '701").
- With regard to claim 9, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 1. However, Kobayashi '223 fails to disclose a rotational lid member for opening and closing an area, where located at front of the vehicle, of said cluster; and a cover member provided in said cluster, wherein the vehicle information displayed on said displaying surface is projected on a front window panel by erecting said reflecting mirror member provided far from the occupant and the rotational lid member, and by covering along a back surface of the reflecting mirror member located near to the occupant, which is most adjacent to the reflecting mirror member provided far from the occupant, by said cover member.
- 30. Within the same field of endeavor, Okuyama '701 teaches a rotational lid member for opening and closing an area (see column 2, lines 60-61, "flat combiner 8" which is foldably mounted, furthermore see FIG 1), where located at front of the vehicle, of said cluster (see column 1, lines 17-20 describing its application as a heads up display and further illustrated in FIG. 1); and a cover member provided in said cluster (see column 2, line 63 describing a "cover 4c" and further illustrated in FIG 1), wherein the vehicle information displayed on said displaying surface is projected on a front window panel (see column 1, lines 23-25 and

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further illustrated in FIG. 8, this is the conventional method and reflection off the windshield is commonly known) by erecting said reflecting mirror member provided far from the occupant and the rotational lid member (see FIG. 1, and further described in column 2, lines 60-61, the flat combiner 8 is rotated along with the reflection hologram 13; see column 3, lines 26-27), and by covering along a back surface of the reflecting mirror member located near to the occupant (as shown in FIG 1, the back surface of the mirror member located closest to the occupant is covered by the case 4), which is most adjacent to the reflecting mirror member provided far from the occupant, by said cover member (as described in column 1, lines 63-67, the cover 4 and 4c enclose the reflecting member 7, which is also the most adjacent to the combiner 8 and reflection hologram 13 which constitute the reflecting member far form the occupant).

- 31. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate head-up display device of Okuyama '701 into the display device of Kobayashi '223 because both are within the same field of endeavor. Furthermore, the design of Okuyama '701 is compact and functional, which are common goals within the art.
- 32. With regard to claim 10, Okuyama '701 discloses the information displaying apparatus for the vehicle according to claim 9, further comprising an interlocking mechanism (see column 3, lines 10-20 and as illustrated in FIG. 1) for interlocking (see column 3, line 24, "frictional retaining force") an erecting operation of said reflecting mirror member provided far from the occupant and a covering operation of said cover member (see

paragraph 23 above of this office action). Therefore, claim 10 is rejected on the same basis and argument as claim 9 above.

- 33. Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi '223 as applied to claim 1 above, and further in view of Parker et al., United States Patent, Patent Number: 6,886,956 B2, Date of Patent: May 3, 2005 (hereinafter referred to as "Parker '956").
- 34. With regard to claim 13, Kobayashi '223 discloses the information displaying apparatus for the vehicle according to claim 1. However Kobayashi '223 fails to disclose a backlight-light source provided at a back surface of said display device, wherein an amount of light in lighting of said backlight-light source is configured to be changeably set corresponding to said respective reflecting mirror members.
- 35. Okuda '424 discloses a backlight-light source provided at a back surface of said display device (see column 2 lines 36-40) wherein an amount of light in lighting of said backlight-light source is configured to be changeably set corresponding to said respective reflecting mirror members (see column 2, lines 21-26, describing the selectivity of the backlighting per area).
- 36. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to incorporate the selective backlighting system of Parker '956 into the display system of Kobayashi '223 because as disclosed by Parker '956, the backlighting scheme would improve visibility of certain objects over others and has improved resilience (see Parker '956, Abstract and further in column 2, lines 27-28), both of which are progressive goals within the art.

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With regard to claim 14, Parker '956 discloses the information displaying apparatus for the vehicle according to claim 13. However, Parker '956 fails to specifically teach a luminance, which fades when transmitting through the reflecting mirror located near to the occupant, of displaying which is displayed on said displaying surface and reflected by the reflecting mirror member located far from the occupant, is compensated by said backlight-light source, by increasing the amount of light in lighting of an area within the backlight-light source where corresponds to said reflecting mirror member located far from the occupant.

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- 38. However, it would be obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to increase the amount of lighting within a display area of a display displayed on the displaying surface, which corresponds to the reflecting mirror member because such an adjustment would increase the light output or brightness and therefore the visibility of the display would be improved (see Parker '956 column 2, lines 23-26).
- 39. With regard to claim 15, Parker '956 discloses the information displaying apparatus for the vehicle according to claim 13. However, Parker '956 fails to specifically teach the amount of light in lighting of an area where corresponds to a reflecting mirror member on which vehicle information, which is to be displayed on said displaying surface and which is to be emphasized, is increased more than an area where corresponds to other reflecting mirror member, by said backlight-lighting source.
- 40. However, it would be obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to increase the amount of lighting within a display area of a display displayed on the displaying surface, which corresponds to the reflecting

mirror member more than an area which corresponds to other reflecting mirror member because such an adjustment would increase the light output or brightness and therefore the visibility of the display would be improved (see Parker '956 column 2, lines 23-26).

- 41. With regard to claim 16, Parker '956 discloses the information displaying apparatus for the vehicle according to claim 14. However, Parker '956 fails to specifically teach the amount of light in lighting of an area where corresponds to a reflecting mirror member on which vehicle information, which is to be displayed on said displaying surface and which is to be emphasized, is increased more than an area where corresponds to other reflecting mirror member, by said backlight-lighting source.
- 42. However, it would be obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to increase the amount of lighting within a display area of a display displayed on the displaying surface, which corresponds to the reflecting mirror member more than an area which corresponds to other reflecting mirror member because such an adjustment would increase the light output or brightness and therefore the visibility of the display would be improved (see Parker '956 column 2, lines 23-26).
- 43. With regard to claim 17, Parker '956 teaches the information displaying apparatus for the vehicle according to claim 13. However, Parker '956 fails to specifically teach a luminance in displaying, displayed on the displaying surface of said display device is changed in accordance with a change in the amount of light in the lighting of said backlight-light source.
- 44. However, it would be obvious to one having ordinary skill in the art at the time the invention was made to have been motivated to change the luminance in accordance with a

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change in the amount of light in the lighting of said backlight-light source because such an adjustment would increase the light output or brightness and therefore the visibility of the display would be improved (see Parker '956 column 2, lines 23-26).

#### Allowable Subject Matter

- 45. Claims 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 46. The following is a statement of reasons for the indication of allowable subject matter:
  - a. With regard to claim 11, Okuyama '701 discloses the information displaying apparatus for the vehicle according to claim 9. However, neither Okuyama '701 nor Kobayashi '223 teach a driving means for carrying out an erecting operation of said reflecting mirror member and headlight lighting means for carrying out a lighting operation of a headlight; said driving means is connected with said headlight lighting means, wherein the erecting operation of said reflecting mirror member is carried out by lighting of said headlight.
  - b. With regard to claim 12 Okuyama '701 discloses the information displaying apparatus for the vehicle according to claim 10. However, neither Okuyama '701, nor Kobayashi '223 fails to teach a driving means for carrying out the erecting operation of said reflecting mirror member and headlight lighting means for carrying out a lighting operation of a headlight; said driving means is connected with said

headlight lighting means, wherein the erecting operation of said reflecting mirror member is carried out by lighting of said headlight.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarvesh J. Nadkarni whose telephone number is 571-270-1541. The examiner can normally be reached on 8:00-5:00 M-Th EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-273-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMARE MENGISTU

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